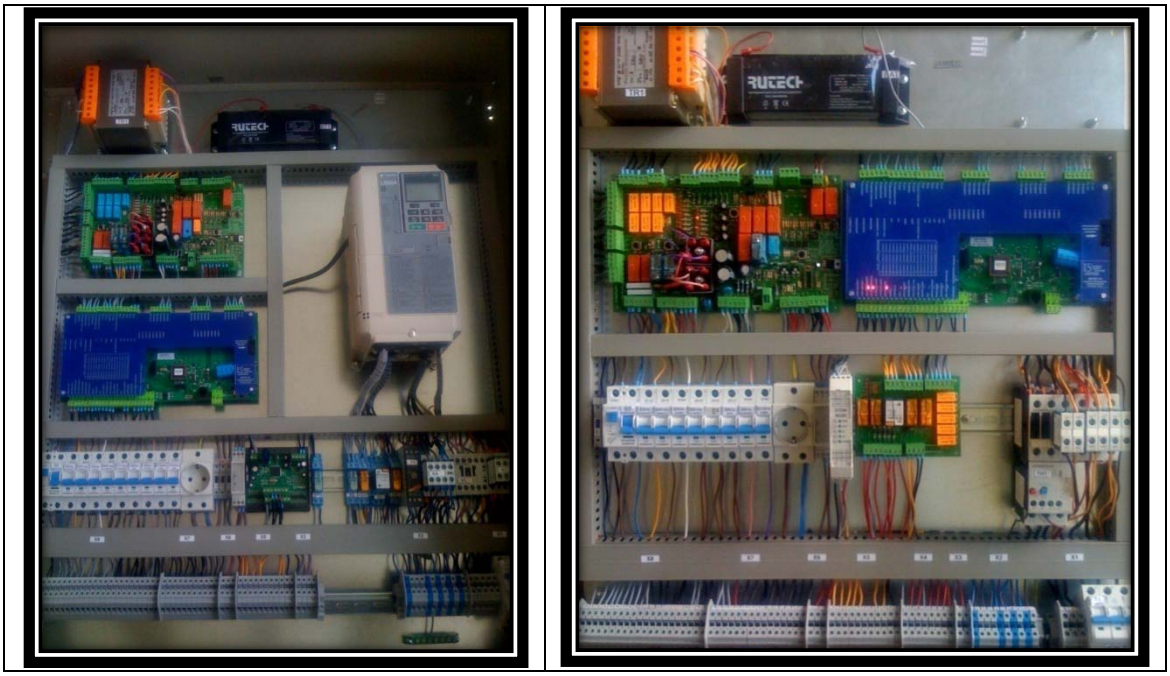
Installation Manual

Lift Controller ISL_V4 Series
by IS technology



VERSION V4
(REV 1.7)

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1. Technical Specification Of Lift Controller ISL-V4.

1.1. Technical Features.

Control panel features	• Electrostatic Painted • Protection Class IP-54 • Wall mounting set included • Machine Room Stop Switch, Cabin at floor indication and power switch included	
Dimensions	1.Traction 2.Hydraulic	850 x 700 x 180 mm
	3.INVERTER- VVVF	1000 x 750 x 250 mm
Power supply - Power Lines	**400 VAC** (3Ph , PE) - Motor supply **230 VAC** (L, N) – Lightning , Controller supply **230 VAC** (Lu, Nu) – UPS Supply	
Safety circuit voltage	**110 V AC**	
Signals & Indicators electrical ratings	**24 V DC** Peak Max Current **5A** Average Max Current **3A**	
Transformers	• **Power: 520 VA (Main Transformer – Typical)** Primary: 0-230-240-400-410 V AC Secondary A: 0-55-65-115-135V AC (400VA) Secondary B: 0 – 17Vac (20VA) Secondary C: 0 – 15 - 18 - 20Vac (100VA) • **Power: 300 VA (Lightning Transformer for 42Vac Cabin Lights)** Primary: 0-230-240 AC Secondary: 0 - 20 - 42V AC (300VA).	
Main Contactors	Category: AC3	
Battery	12 Volt –2.3 Ah	
Counting Method	Magnetic Switches (Pencil switches) or Hall sensors (Optionally >1.6m/sec)	
No off Stops	**Thirty two (32)** Collective Down **Twenty Two (22)** Collective Selective (UP/Down Calls)	
Lightning	• Cabin: 42VAC – 300W / 220VAC – 900W • Shaft: 220VAC – 900W	
Cam - Brake Coil (Traction) **Cam - Valves (Hydraulic)**	• **Two Separate rectify circuits** • Voltage ratings: 48 or 110VDC	
Indicators (DISPLAYS)	ABCDE (Binary coded)	Max Current Ratings: 1A (Per Signal)
Direction Arrows	Max Current Ratings: 2A (Per Signal)	

1.2. Symbols.

SYMBOL	Description
U	Modules
F	Fuse
G	Encoder
J	Terminal
K (KT)	Contactor (Auxiliary contactor)
I	Coil
M	Motors - Fan
FL	Filters
R	Resistance
S	MCB
TR	Transformer
X	Terminal Group

Table 1: Drawing Symbols

Terminal Group	Voltage	Description
X1	400Vac	3 phase circuits (Supply, Motor Output)
X2	230Vac	1 phase (Supply, Lights)
X3	<230Vac	Doors, Cam, Brake control
X4	48/12Vdc	Valves
X5	110Vac or 48Vdc	Safety elements
X6	12Vdc	Battery
X7	24Vdc	Control Signals
X8	24Vdc	Calls and Indicators

Table 2: Terminal Groups

No	Color	size	voltage	Used in ....
1	Orange	0,75 mm²	110 Vac	Safety circuit (Phase)
				Relay Coils
2	Yellow	0,75 mm²	Neutral 110Vac	Safety circuit (Neutral)
				Relay Coils
3	Red	0,75 mm²	+12Vdc	Battery circuit (Battery +)
			+48 Vdc	Valves +
			+110 Vdc	Brake + / Cam +
4	Light Grey	0,75 mm²	0 Vdc	Brake- / Cam- / Valves-
5	Grey	0,75 mm²	0 Vdc	24 Vdc - / 12Vdc -
7	Blue	0,75 mm²	230 Vac	Mains Neutral
8	Brown	0,75 mm²	230 Vac	Mains Phase
9	Black	0,38 mm²	24 Vdc	Control Signals (Calls, Count Display – Inspection)
		4mm²(min)	400 Vac	Power Cables
10	Yellow-Green	0,5 mm²	Groung	
		2.5mm²(min)		
11	Green	0,75 mm²	42 Vac	Cabin lights 42Vac
12	White	0,75 mm²	42 Vac	Permanent Cabin lights 20Vac
13	Magenta	0,75 mm²	125 Vac	Cam (AC)
14	Pink	0,75 mm²	125 Vac	Brake (AC)
			48 Vac	Valves (AC)

Table 3: Wiring of ISL controllers

No	SYMBOL	Name/Value
1	S1	Main Switch • 3x32A (5.5kw) • 3x40A(7.5kw) • 3x63A(11kw)
2	S2	Shock Protection MCB / 30mA
3	I1	Latch Relay / 48VAC
4	S3	Safety Circuit / 2A
5	S4	Controller / 6A
6	S5	24V / 6A
7	S6	Shaft Lights / 10A
8	S7	Cabin Lights / 10A (220Vac) - 4A (42Vac)
9	S8	Doors • 10A (Automatic) • 3x10A (3 Phase automatic) • 2A (Folding Cabin doors)
10	S9	• Brake / 6A (Traction) • Valves / 6A (Hydraulic)
11	S10	Cam / 6A (for 1 cam) KAMA / 10A (for 2 cams 110Vdc)
12	SU	UPS / 6A (FU = 6A FUSE)
13	I2	Shaft Light Latch Relay / 220Vac

Table **4**: MCB's

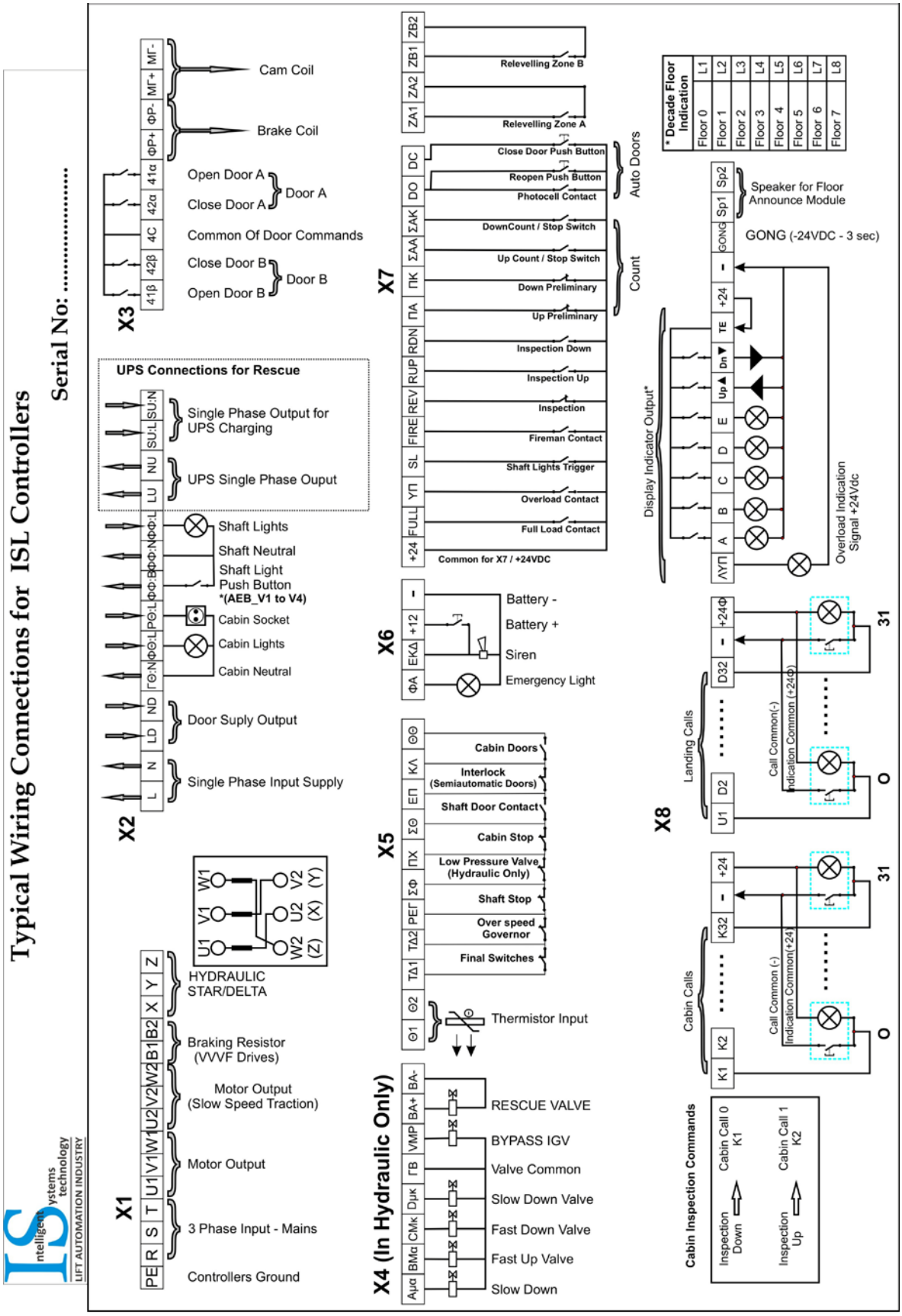
1.3. ISL_V4 Controller Terminal Description.

Category	Terminal Group	Name	Description
3 phase connections (High Voltage 400Vac)			
Machine Room	**X1**	PE	**Ground**
Machine Room	**X1**	R,S,T	Input of 3 phase supply – **Mains L1, L2, L3**.
Machine Room	**X1**	U1,V1,W1	**Output Motor** (In traction 2 speed machine - Fast speed winding)
Machine Room	**X1**	U2,V2,W2	**Output Motor** (In traction 2 speed machine - Slow speed winding)
Flat Cable	**X1**	Ud,Vd,Wd	Output Motor of 3phase Automatic Door
Machine Room	**X1**	B1, B2	Braking resistance VVVF
One Phase Supply (Voltage 230Vac)			
Machine Room	**X2**	L, N	**Single Phase Mains Input** 220Vac
Machine Room	**X2**	Lu, Nu	**Single Phase Input from UPS** 220Vac (in VVVF only)
Machine Room	**X2**	SU:L, SU:N	**Single Phase Output for UPS Charge** 220Vac
Flat Cable	**X2**	PE – Ld – Nd	**Door Supply output** 220Vac
Shaft - Loom	**X2**	ΦΦ:L – ΦΦ:N	**Shaft Lights Output** 220VAC (900W max.) (ΦΦ:L = Phase / ΦΦ:N = Neutral)
Shaft - Loom	**X2**	ΦΦ.B – ΦΦ:N ***(AEB-V1 to AEB-V4)**	**Shaft Lights Control Button. We can connect in parallel as many push button as we need for controlling the shaft lightning**
Flat Cable	**X2**	ΦΘ:L – ΓΘ:N **	****Cabin Lights output** 42 / 220VAC (300 / 900 W max). (ΦΘ:L = Phase / ΓΘ:N = Neutral)
Flat Cable	**X2**	PΘ:L – ΓΘ:N ****	**Cabin Socket** 230Vac (PΘ:L = Phase / ΓΘ:N = Neutral)
Door - Cam - Brake Control (Voltage <230Vac)			
Flat Cable	**X3**	41β	1. **Open Door B Command Output** (Relay Output). 2. **Opening Final Switch in 3 phase Automatic Door** B (NC).
Flat Cable	**X3**	42β	1. **Close Door B Command Output** (Relay Output). 2. **Closing Final Switch in 3 phase Automatic Door** B (NC).
Flat Cable	**X3**	4C	1. **Door commands Common** (Relay Output). 2. **Common for Door Final Switches in 3 phase Automatic Door**s
Flat Cable	**X3**	42α	1. **Close Door A Command Output** (Relay Output). 2. **Closing Final Switch in 3 phase Automatic Door** A (NC).
Flat Cable	**X3**	41α	1. **Open Door A Command Output** (Relay Output). 2. **Opening Final Switch in 3 phase Automatic Door** A (NC).
Machine Room	**X3**	ΦΡ+ , ΦΡ-	**Brake Output (4A)**
Flat Cable	**X3**	ΜΓ+ , ΜΓ-	**Cam Output (6A)**
Valves Control (Voltage +48/12Vdc)			
Machine Room	**X4**	Aμα	**Slow Up Valve Output** (+48Vdc)
Machine Room	**X4**	BMα	**Fast Up Valve Output** (+48Vdc)
Machine Room	**X4**	CMκ	**Fast Down Valve Output** (+48Vdc)
Machine Room	**X4**	Dμκ	**Slow Down Valve Output** (+48Vdc)
Machine Room	**X4**	ΓΒ	**Common Valves Signal** (-48Vdc / -12Vdc)
Machine Room	**X4**	VMP	**Bypass Valve for IGV** (-48Vdc)
Machine Room	**X4**	BA+	Rescue Valve Positive Output (+12Vdc / 4A)
Machine Room	**X4**	BA-	Rescue Valve Negative Output (-12Vdc)
Safety Elements (Voltage 110Vac or 48Vdc)			
Machine Room	**X5**	Θ1 – Θ2	**Motor / Oil Thermistor** - PTC
Shaft - Loom	**X5**	ΤΔ1 , **ΤΔ2**	**Final Switches** (NC).
Shaft - Loom	**X5**	ΤΔ2 , **ΡΕΓ**	**Over speed Governor** (NC).
Shaft - Loom	**X5**	ΡΕΓ, **ΣΦ**	**Shaft Stop Switches** (NC).
Machine Room	**X5**	ΣΦ, **ΠΧ**	**Low Pressure (Rapture Valve) contact** (NC).
Flat Cable	**X5**	ΠΧ , **ΣΘ**	**Cabin Stop Sequence (Safety Gear - Inspection Stop)** (NC).
Shaft - Loom	**X5**	ΣΘ , **ΕΠ**	**Shaft Doors Contacts** (NO).
Shaft - Loom	**X5**	ΕΠ , **ΚΛ**	**Semi Automatic interlock Contact** (NC).
Flat Cable	**X5**	ΚΛ , **ΘΘ**	**Cabin Door Contact** (NC).
Battery Circuit (Voltage 12Vdc)			
Flat Cable	**X6**	ΦΑ	**Emergency Light**, +12Vdc.
Flat Cable	**X6**	ΕΚΔ	Input From Siren Push Button - Output to Siren
Flat Cable	**X6**	+12	**Battery positive voltage output +12Vdc**
Flat Cable	**X6**	-	**Battery negative output 0Vdc**
Control Signal inputs (Voltage 24Vdc)			
Flat Cable	**X7**	+24 , FUL	**Full Load -** (NO / +24V).
Machine Room / Flat Cable	**X7**	+24 , ΥΠ	**Overload Contact** - (* as ordered / +24Vdc).
Machine Room & Flat Cable	**X7**	+24 , SL ***(AEB-V5)**	**Shaft Lights Trigger** - (NO / +24Vdc).
Flat Cable	**X7**	+24 , EXP	**Express** (Cancels all landing calls) - (NO / +24V).
Flat Cable	**X7**	+24 , FIRE	**Fire Alarm** - (NO / +24V).

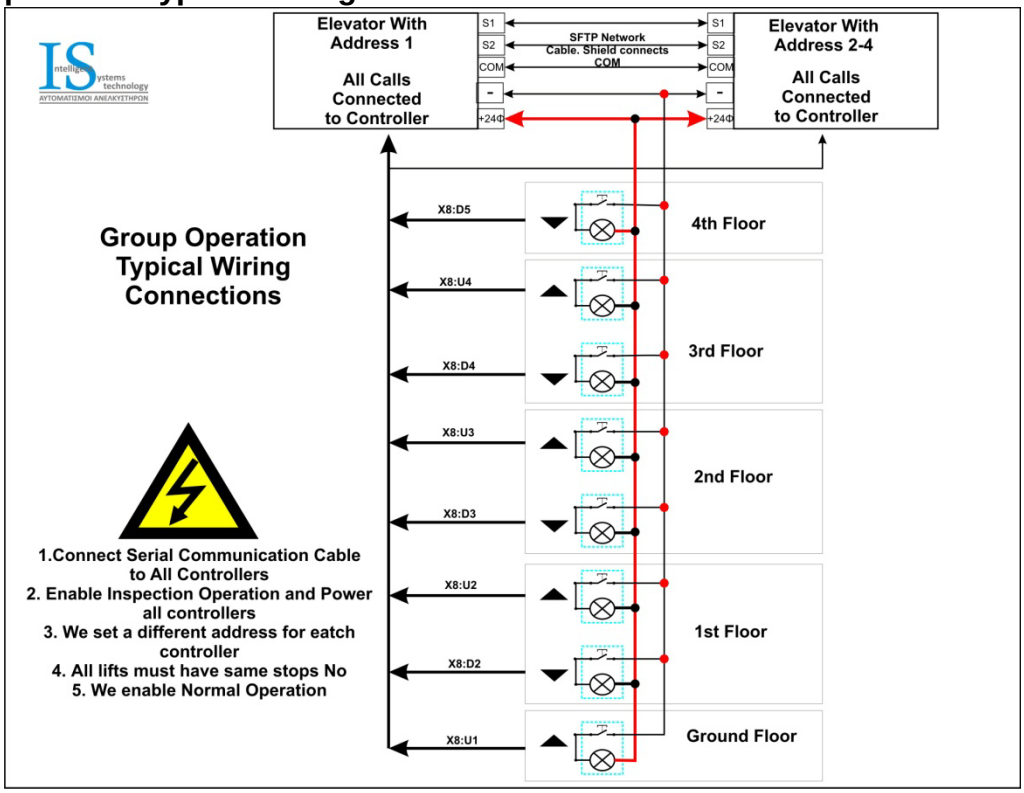
Flat Cable	**X7**	+24, REV	**Inspection** - (NC / +24Vdc) (Closed = Inspection / Opened = Normal)
Flat Cable	**X7**	+24, RUP	**Inspection Down** - (NO / +24V).
Flat Cable	**X7**	+24, RDN	**Inspection Up** - (NO / +24V).
Flat Cable	**X7**	ZA1 - ZA2	**Relevelling Zone A** (NO / +24V).
Flat Cable	**X7**	ZB1 - ZB2	**Relevelling Zone B** (NO / +24V).
Flat Cable	**X7**	+24, ΠΑ	**Down Preliminary** - (NC / +24V).
Flat Cable	**X7**	+24, ΠΚ	**Up Preliminary** - (NC / +24V).
Flat Cable	**X7**	+24, ΣΑΑ	**Up Count / Stop Switch** (NO / +24V).
Flat Cable	**X7**	+24, ΣΑΚ	**Down Count / Stop Switch** (NO / +24V).
Flat Cable	**X7**	+24 , DO	**Door Open** Push Button || **Photocell** NO Contact || **Obstruction** NO Contact
Flat Cable	**X7**	+24 , DC	**Door Close** Push Button
Calls And Indicators (Voltage 24Vdc)			
Shaft - Loom	**X8**	+24Φ	**Voltage Output +24Vdc for Shaft Wiring**
Flat Cable	**X8**	+24***	**Voltage Output +24Vdc for Cabin Wiring**
Shaft - Loom & Flat Cable	**X8**	-	**Common For Calls 0Vdc**
-	**X8**	TE	**Indicator Signal Voltage selection (Connect to +24 or - depending the Display)**
Shaft - Loom & Flat Cable	**X8**	A , B , C, D, E	**Indication Signals - Binary** (Output Voltage = TE)
Shaft - Loom & Flat Cable	**X8**	L1, L2 .... L8	**Indication Signals - Decade** (Output Voltage = TE)
Shaft - Loom & Flat Cable	**X8**	UP▲	**Up direction Arrow** (Output Voltage = TE)
Shaft - Loom & Flat Cable	**X8**	Dn▼	**Down direction Arrow** (Output Voltage = TE)
Flat Cable	**X8**	Gong , +24	**Gong** (+24 Vdc)
Flat Cable	**X8**	ΛΥΠ , -	**Overload Indication** output (Output voltage +24)
Flat Cable	**X8**	K1 - K32	Cabin Calls 1 - 32. **Common for Calls = -** **Common for Indication LED = +24**
Shaft - Loom	**X8**	D1 - D32	Landing Down Calls 1 - 32. **Common for Calls = -** **Common for Indication LED = +24Φ**
Shaft - Loom	**X8**	U1 - U22	Landing Up Calls 1 - 22. **Common for Calls = -** **Common for Indication LED = +24Φ**
Flat Cable	**X8**	SP1 , SP2	**Speaker Output** for Voice announce Module or MP3 Module
Machine Room	**X8**	+24Φ,COM,S1,S2	**Serial Connection Between Group Controllers thru** SFTP Cable.

Table 5: Terminal Description ISL_V4

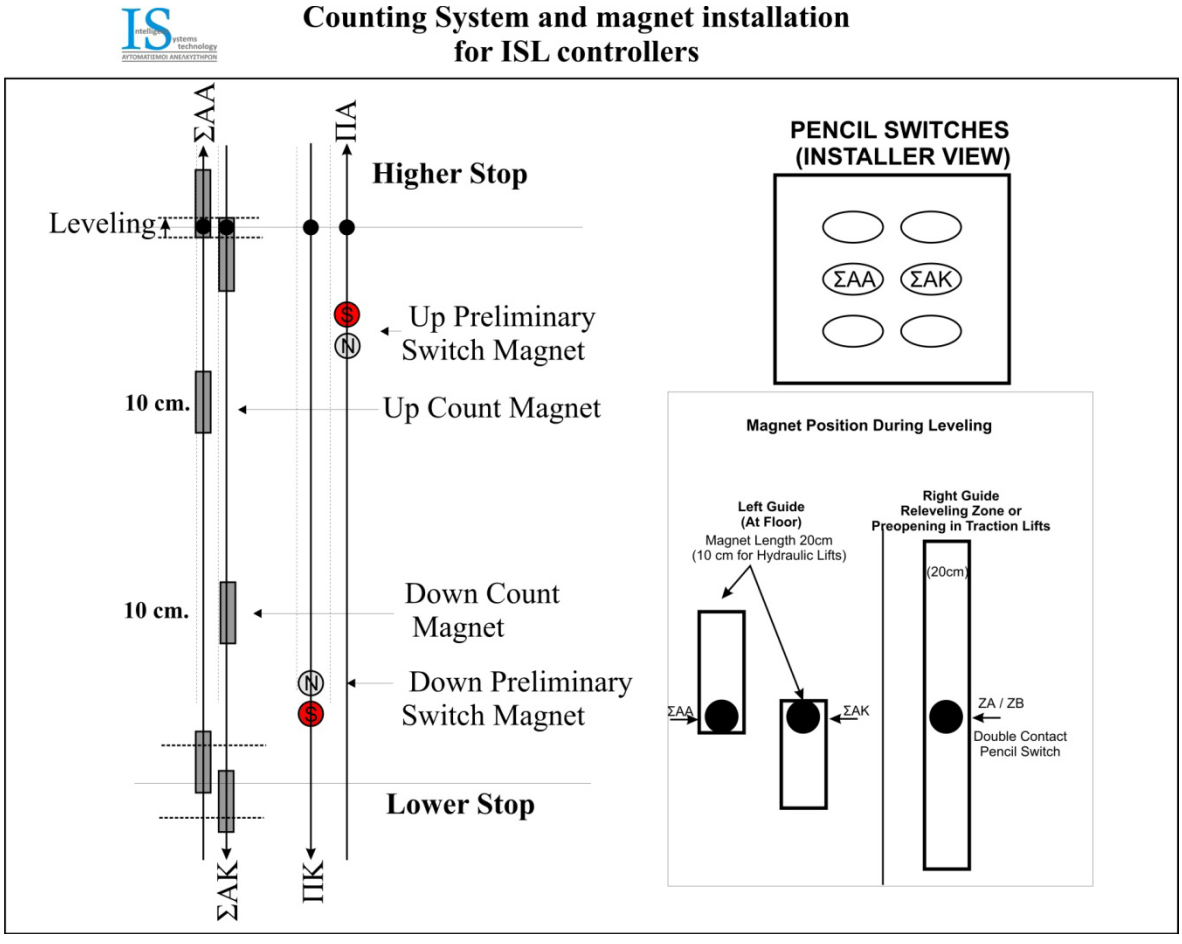
1.4 Typical Wiring Diagram for ISL-V4 Controllers.



1.5 Group Operation Typical Wiring Connections.



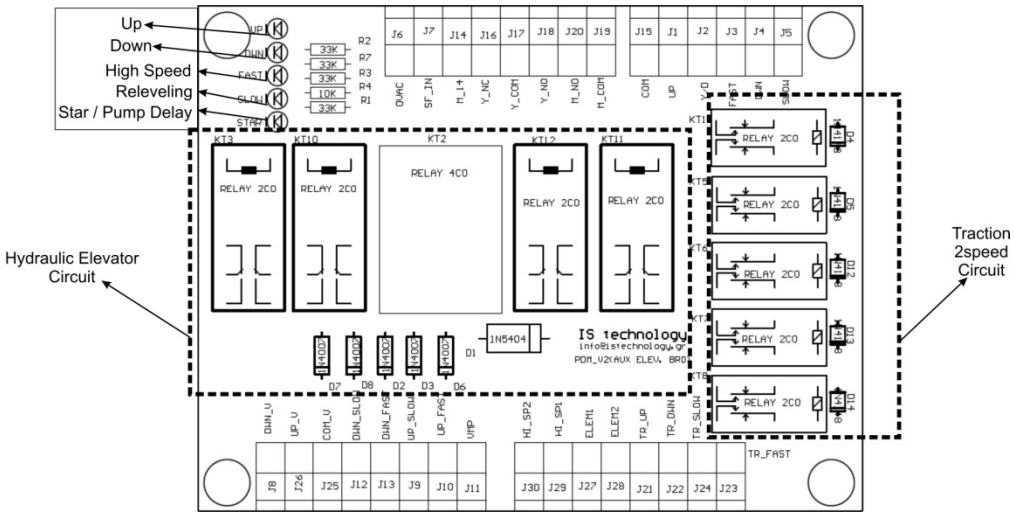
1.6 Counting System Installation for ISL_V4 controllers.



2. Electronic Modules for ISL_V4 Controllers.

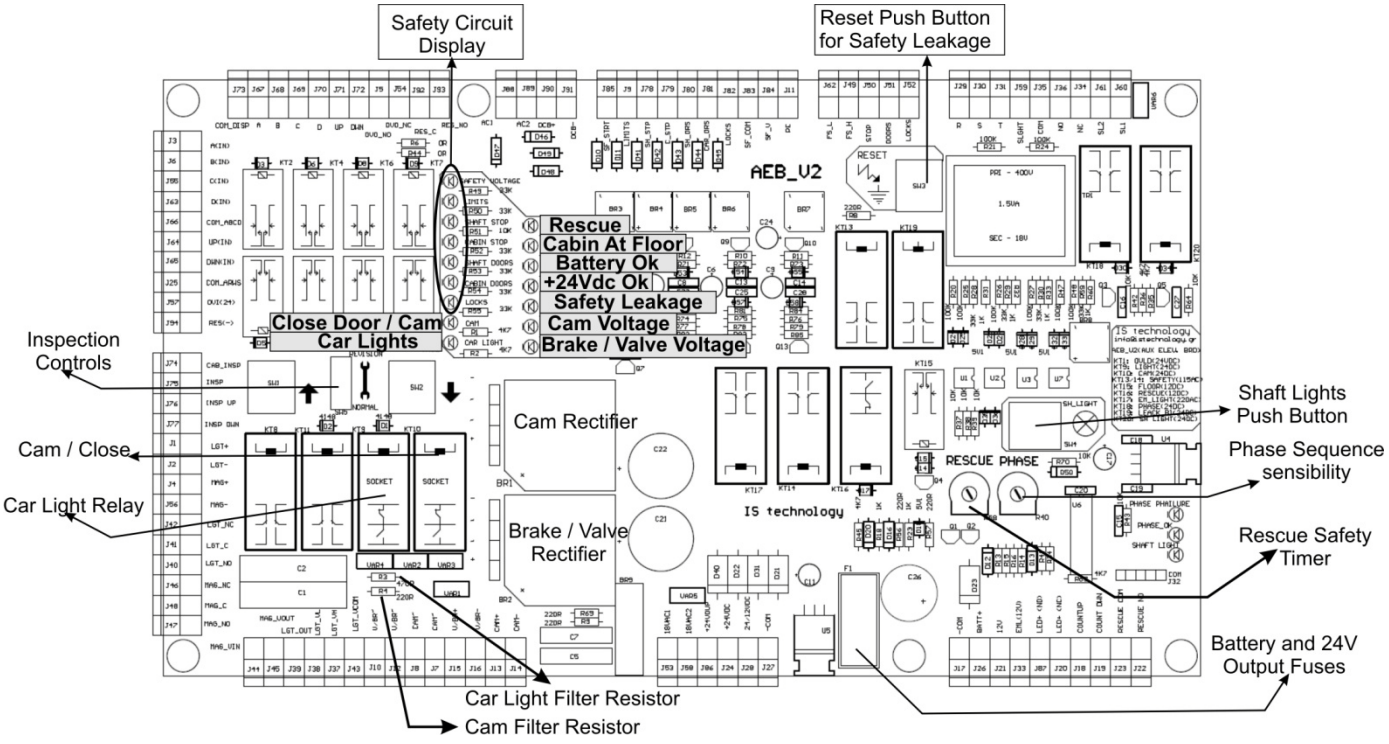
2.1 Power Drive Module PDM_V3 (For Valve block drive).

In ISL Lift Controllers and specific in Hydraulic lift Applications the valve block is driven by a specially designed module named PDM_V3. PDM module supports all known Valve blocks and ensures their fine operation with maximum safety.



2.2 Auxiliary Elevator Board AEB_V5.

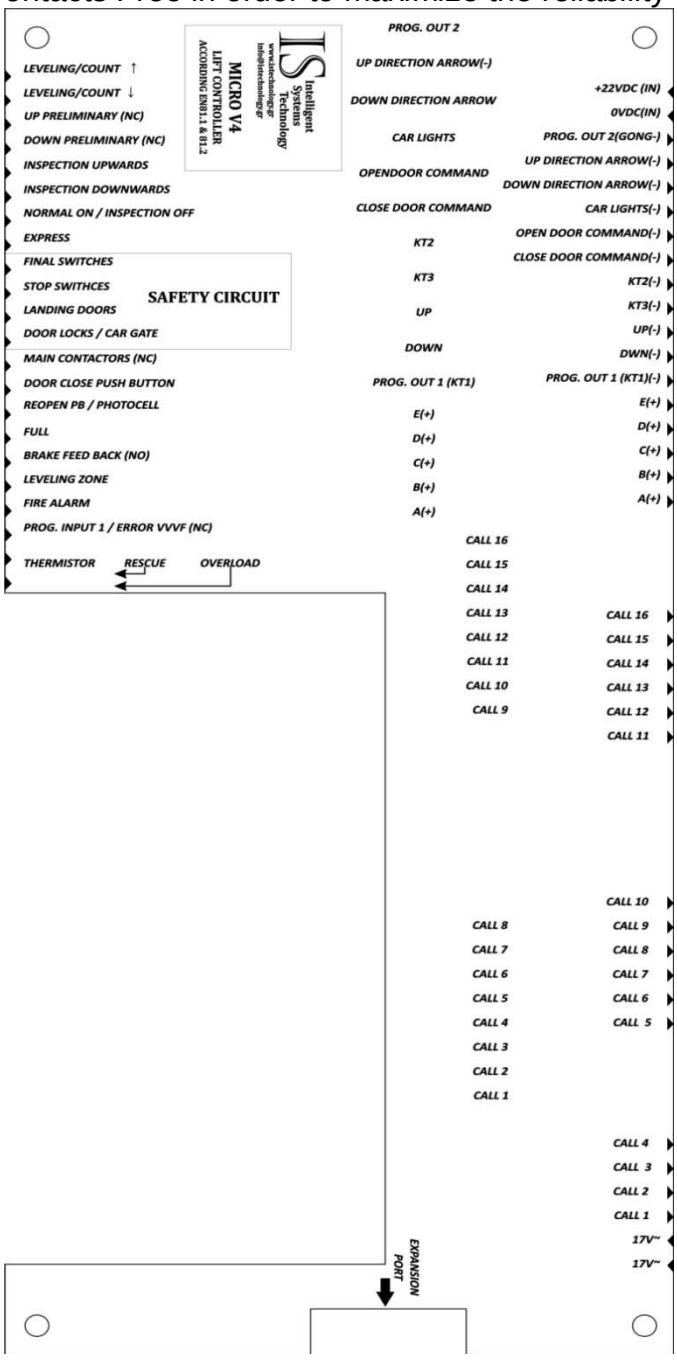
AEB Module is caring all necessary electrical circuit for the Lift application. This Board is designed to cooperate along with the main controller and offers double safety while minimizes the need of using external elements.



2.3 Lift Control Board ISL_V4 (Micro_V4).

2.3.1 Terminal Description

The Micro_V4 elevator control board is the "brain" of the controller. Controls all signals for lift applications up to 32 stops and group operation up to 4 elevators. This board is designed according the EN81.1-2 norm and ensures that vertical transport is conducted with maximum safety. Its Mechanical Contacts Free in order to maximize the reliability of the hardware.

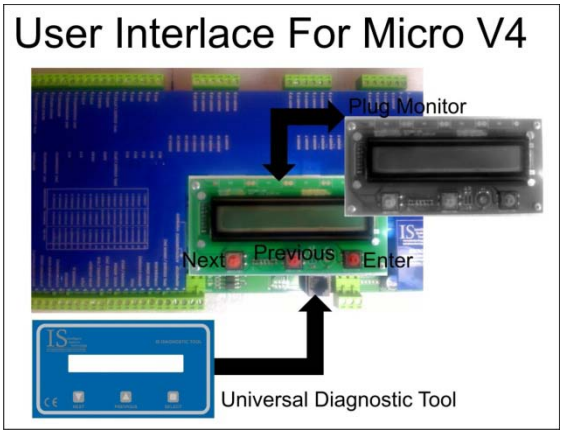


Terminal	*Name*	*Traction 2Sp*	*Hydraulic*	*VVVF*
Low_SP	KT2	Slow	Relevelling	Multi Speed 1
Hi_SP	KT3	Fast	Fast	Multi Speed 2
UP_DIR	UP	Up	Up	FWD
DN_DIR	DWN	Down	Down	REV
SPRE_1	PROG. OUT 1(KT1)	Programmable	Delta	Multi Speed 3

Speed	*KT1*	*KT2*	*KT3*	*Multi Speed*
Nominal (50Hz)	0	0	1	1
Leveling (5Hz)	0	1	1	3
Inspection (20Hz)	0	1	0	2
Intermidiate. (35Hz)	1	0	1	5

2.3.2 Micro_V4 Interface.

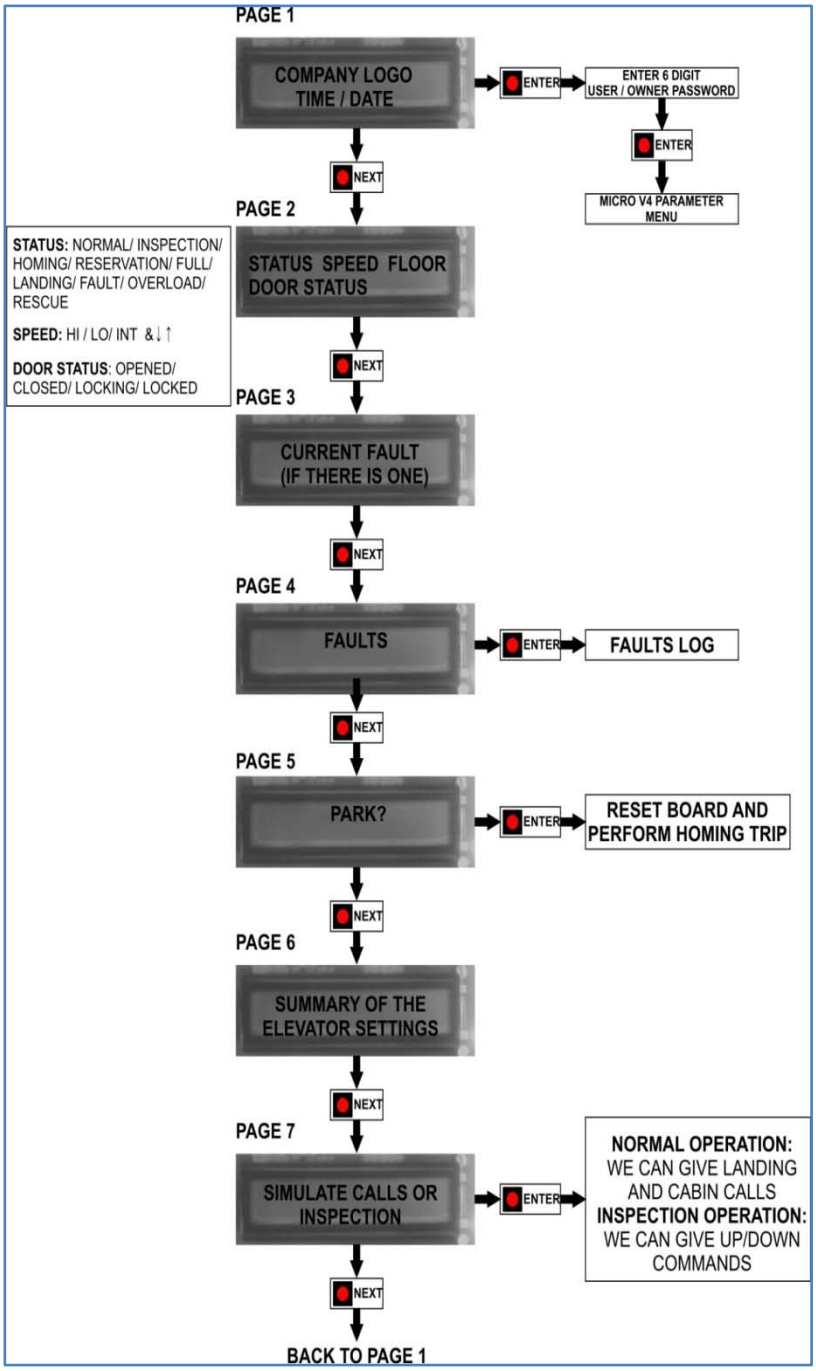
The Micro_V4 elevator control is capable to work with 2 kind of user interfaces. First option is a Plug_In Lcd module named E-LCD and a second option is a Universal Hand Held Diagnostic tool. The advantages of the Universal Diagnostic tool are the upload and download parameter feature and the fact that in a group lift project we can communicate with all controllers at the same time.



- *With the user interface we can navigate between 7 pages that contains all necessary information about our lift. We can diagnose faults, test or setup the parameters of the board fast and easy.*

- *The Micro_V4 has 2 access levels using 2 different 6 digit pin numbers. First level is the users code (default value: 000000) and the second level is the administrator code.*

- *The administrator code is given by our production only to the owner of the lift installation company and with this pin the owner has access to all the available parameters and also can change the user password.*



2.3.3 Fault Log.

Message Displayed	*Fault Description*	**Level*	*Action taken*
Sfty opnd in travl	Safety circuit and/or door opened during travel	I	Waits for safety circuit to close
Sfty opnd in travl	Safety circuit opened during travel	I	Waits for safety circuit to close, cancels calls if fault persists more than 5sec[3]
Lock opnd in travl	Door lock circuit opened during travel	I	Waits for lock circuit to close, cancels calls if fault persists more than 5sec[3]
Door clsd, not sfty	Safety circuit failed to close after door closing	I	Cancels calls and opens door[3]
Fail to lock cam	Failure in locking door after 3 attempts	I	Cancels calls[3]
Fail to close door	Failure in closing door	II	Cancels calls, opens door[3]
EOS_UP Fault	UP Preliminary Switch fault (Moving Down And the up preliminary sw. is activated)	III	Blocks elevator[4]
EOS_DN Fault	Down Preliminary Switch fault (Moving Up And the down preliminary sw. is activated)	III	Blocks elevator[4]
Shaft Info Flt	Counting Error	II	Performs a homing trip
Shaft Info Flt	Counting Error	II	Performs a homing trip
No EOS Info	Preliminary Switches Fault (both open)	III	Blocks elevator[7]
Emergency stop	Emergency stop	I	Waits for a car call to resume
Car is jammed	Motor has been powered for 25 sec, car did not move	III	Blocks elevator[4]
Door is obstructed	Door has been opened for more than Door Obstructed Del[9]	I	Waits for door to close[10]
Fail to open door	Failure in opening door	II	Close door and resume
Operat. days exprd	Preset number of operating days expired	III	Blocks elevator[11]
Contactors jammed	All orders on contactors were removed, one contactor or more is still engaged	I	Waits all contactors to be released
Motor overheating	Motor temperature has exceeded its maximum allowable operating temperature	I	Elevator is stopped at the nearest floor. Waits for the motor to cool down
CDoor opnd in travel	Locks/Cabin doors opened during travel	I	Waits for lock circuit to close, cancel calls if fault persists more than 5sec[3]
Limit Switches Flt	Final switches opened	III	Blocks elevator
External Fault	VVVF Drive Fault	I	Reset VVVF Drive

[1] For swinging or ½ automatic door.
[2] For automatic door.
[3] Waits for a call to resume operation.
[4] When the cause of the fault is diagnosed and fixed, empty the faults log or request a homing trip so that the elevator resumes operation.
[5] When DZ magnetic switch is installed. Refer to section 5.
[6] When DZ magnetic switch is installed. Refer to section 5.
[7] When the cause of the fault is diagnosed and fixed, the elevator will automatically resume operation.
[8] Relevant in group mode only.
[9] Refer to section 5.
[10] In case of automatic door, waits for obstacle to clear.
[11] To recover from this fault, access menu and clear the count of elapsed days. Refer to Chapter Programming Menu.

2.3.4 Programming Menu.

Message Displayed	Description	Visibility Condition	Range	Default Value
Light Time	Car light turn off delay in sec	Always	5-99sec	10sec
Floor Stopping Time	Time between travel in sec	Always	1,0 - 9,9sec	3,0sec
Parking Door	The parking status of the door	Auto/Half Auto door	Opened/Closed	Closed
Door Obstructed Del	When the door is held open, it is considered to be obstructed after this delay	Group mode	5-99sec	90sec
Hydraulic Star Time	Star starting time of the hydraulic pump	Hydraulic elevator	0,0 - 9,9sec	1,0sec
VVVF Start Delay	The delay in sec between providing direction and speed reference outputs	VVVF	-9,9 - 9,9sec	1sec
VVVF Stop Delay	The delay in sec between removing direction and speed reference outputs and Pump Delay in Hydraulic Elevators	VVVF and Hydraulic	-9,9 - 9,9sec	3sec
Gong Time	The gong time in seconds	Spare1 or Spare2 function=gong	0,0 - 7,5sec	3sec
Minimum Load	When this feature is enabled, car calls are canceled if car stops twice on a car call and no passengers exit car	Always	Disabled/Enabled	Disabled
Main Landing	Sets the landing floor along with the delay before making a main landing trip given that the elevator has no calls to serve	Always	None, 0… 31- 0'10" to 9'59"	None
PTC Detection	When this feature is enabled, the motor PTC is continuously monitored	Always	Disabled/Enabled	Disabled
Power On Homing	When enabled, the elevator makes a homing trip upon every power-on	Always	Disabled/Enabled	Disabled
Light Inverted	When this feature is enabled, the output logic of the car light is inverted	Always	Disabled/Enabled	Disabled
Re-leveling	When preset to selective, the re-leveling is done only when the door is closed and the elevator has no calls to serve	Hydraulic elevator	Always/Selective	Selective
EOS During Insp	When this feature is enabled, the elevator is prevented from crossing the end of shaft limits in inspection mode	Always	Disabled / Enabled	Disabled
Cam close delay	The delay in seconds between the closing of the swinging door and the Cam /Close signal	Swinging door	0,0 - 7,5sec	0,0sec
Cam engage time	Maximum delay in seconds to Sfty on after engaging the cam	Swinging door	5 - 99sec	5sec
Contactor start del	The delay in seconds between providing the Cam/Close signal and the direction/Speed outputs	Always	0,0 - 7,5sec	0,5sec
Direction Arrows	Type of Direction Arrows Indication	Always	Standard / During Move	Standard
Car Jammed Level	Config the level of Car Jammed Fault	Always	Level 2 / Level 3	Level 3
Call Indication	Type of call indication	Always	Constant / Flicker	Constant
Time Restrict.	When this feature is enabled, the elevator is blocked when the **Elapsed Days Counter** Reaches the **Preset Count Of Days**	Client P/W	Disabled/Enabled	Disabled
Elapsed Cnt Of Days	Shows the number of days elapsed since the Time Restriction feature was enabled or since the last reset of the Elapsed Cnt Of Days **Must Be Cleared In Every Inspection.**	Client P/W	-	-
Preset Count Of Days	Sets the maximum count of days of operation	Client P/W	1-999 days	1
Max. Count Of Err.	Sets the maximum count of days of operation	Always	None, 1…99	10
Car jammed delay	The car is considered jammed after this delay.	Always	Dis, 5 to 99sec	25sec
Auto Door Operation	The Auto door is considered jammed after this delay	Always	Dis, 5 to 99sec	20sec
Inspection speed	Sets the inspection speed	Not VVVF drive	Lo/Hi	Lo

Basements	Sets the count of basements	Always	0 - 9	0
Door Type	Selects the type of the elevator door. Select ½ automatic door if there is anelectric cam to lock the door in addition to the automatic door drive.	Always	Swinging / Automatic / ½ Automatic	Swinging
Permanent Close	When this feature is enabled, the door closing signal is permanently engaged during travel (required for specific types of door drives)	Automatic door	Disabled/Enabled	Disabled
RE-OPN i/p	Sets the logic of the re-opn input	Always	no/nc	nc
Reset time on re-opn	When this feature is set to Y and the door is counting Floor Stopping Time to start closing, Then if the photocell is cut, Restart counting Floor Stopping Time	Auto/Half Auto door	N/Y	N
Door Zone	When this feature is installed, the controller looks for the DZ magnetic switch signal upon every floor stop. The absence of this signal on floor level prompts the controller to register a Level II fault and to perform a homing trip	Always	Disabled/Enabled	Disabled
Pre-opening	When this feature is enabled, door starts opening when DZ is reached	DZ installed	Disabled/Enabled	Disabled
First Stop	Selects the gray code output for the first stop	Always	0-1	0
Collective	Selects between collective selective and down collective modes	Always	Full / Down / APB	Down
Carcall priority	Gives priority to car calls over hall calls	Collective#APB	N/Y	N
Extension Boards	Sets the count of extension boards installed and thus the distribution of the car and land calls	Always	None, 1, 2 or 3	None
Mode	Selects between simplex and group modes.	Always	Simplex / Group	Simplex
Drive	Selects the drive type	Always	AC 2speed / Hydraulic / VVVF	AC 2speed
Intermediat Speed	None for 1m/s, 1FL for 1.6m/s, 2FL for 2m/s	VVVF drive	None, 1FL or 2FL	None
Homing Speed	Sets the homing speed	VVVF drive	Hi / Int / Insp	Insp
Spare1	Sets the Spare1 output function	Not Hydraulic	Fan/ Gong / Int.Speed/ Base Block4	Fan
Spare2	Sets the Spare2 output function	Not 1/2 Auto. door	Fan/ Gong / Int.Speed/ Base Block3	Gong
Passenger Capacity	Sets the passenger capacity of the elevator	Group mode	1 - 99 Persons	5
Display Type	Selects the hall and car display type	Always	GRAY / ABCD / Enhanced	GRAY
Total Trips	Counter for the number of trips made by the elevator. The counter value can be edited and modified	Always	0-999999	-
Language	Sets the language	Always	English / French / Greek	English
LCD Contrast	Sets the LCD contrast	Always	35 to 250	60
Board Address	Sets the address of the board (each board in a group must have a unique address)	Always	1 - 4	1
User Password	Shows and edits the user password	Client P/W	******	000000
Co.	Shows and edits the company name displayed on the first page	Always	16 characters	
RTC Device	Shows if the RTC Device is installed.	Always		
Max Trips/h	Shows the maximum recorded count of trips in one hour along with the time of the day when it happened	Always		
Adjust Time	Sets the time of the day	Always	Mon to Sun	
Adjust Date	Sets the date	Always		
Adjust Day	Sets the day of the week	Always		
Upload settings to DT	Upload the settings from MicroZed to DT	Always		
Dnload settings from DT	Download the settings from DT to MicroZed	Always		
Load Factory Settings	Loads the settings of the factory	Always		
Exit Menu	Exits the menu	Always		

2.3.5 Call Protocols and Extension Boards

K=Cabin Call / U = Landing Up Call / D = Landing Down Call

Main Board Micro V4							
With no Extension	**Down Collective**	**Full Collective**	**With 1 extension**	**Down Collective**	**Full Collective**	**With 2 or 3 extension boards**	**Down Collective ή Full Selective**
Call 16	D8	D6	Call 16	K16	U5	Call 16	K16
Call 15	D7	D5	Call 15	K15	U4	Call 15	K15
Call 14	D6	D4	Call 14	K14	U3	Call 14	K14
Call 13	D5	D3	Call 13	K13	U2	Call 13	K13
Call 12	D4	D2	Call 12	K12	U1	Call 12	K12
Call 11	D3	U5	Call 11	K11	K11	Call 11	K11
Call 10	D2	U4	Call 10	K10	K10	Call 10	K10
Call 9	D1	U3	Call 9	K9	K9	Call 9	K9
Call 8	K8	U2	Call 8	K8	K8	Call 8	K8
Call 7	K7	U1	Call 7	K7	K7	Call 7	K7
Call 6	K6	K6	Call 6	K6	K6	Call 6	K6
Call 5	K5	K5	Call 5	K5	K5	Call 5	K5
Call 4	K4	K4	Call 4	K4	K4	Call 4	K4
Call 3	K3	K3	Call 3	K3	K3	Call 3	K3
Call 2	K2	K2	Call 2	K2	K2	Call 2	K2
Call 1	K1	K1	Call 1	K1	K1	Call 1	K1

1st Extension Board								
With **1 extension**	Down Collective	Full Collective	**With 2 extension boards**	Down Collective	Full Collective	**With 3 extension boards**	Down Collective	Full Collective
EC15	D16	-	**EC15**	D16	U16	**EC15**	D16	U16
EC14	D15	D11	**EC14**	D15	U15	**EC14**	D15	U15
EC13	D14	D10	**EC13**	D14	U14	**EC13**	D14	U14
EC12	D13	D9	**EC12**	D13	U13	**EC12**	D13	U13
EC11	D12	D8	**EC11**	D12	U12	**EC11**	D12	U12
EC1	D11	D7	**EC1**	D11	U11	**EC1**	D11	U11
EC9	D10	D6	**EC9**	D10	U10	**EC9**	D10	U10
EC8	D9	D5	**EC8**	D9	U9	**EC8**	D9	U9
EC7	D8	D4	**EC7**	D8	U8	**EC7**	D8	U8
EC6	D7	D3	**EC6**	D7	U7	**EC6**	D7	U7
EC5	D6	D2	**EC5**	D6	U6	**EC5**	D6	U6
EC4	D5	U10	**EC4**	D5	U5	**EC4**	D5	U5
EC3	D4	U9	**EC3**	D4	U4	**EC3**	D4	U4
EC2	D3	U8	**EC2**	D3	U3	**EC2**	D3	U3
EC1	D2	U7	**EC1**	D2	U2	**EC1**	D2	U2
EC0	D1	U6	**EC0**	D1	U1	**EC0**	D1	U1

2nd Extension Board					
With **2 extension boards**	Down Collective	Full Collective	**With 3 extension boards**	Down Collective	Full Collective
EC15	D24	-	**EC15**	K32	D 17
EC14	D23	D16	**EC14**	K31	D16
EC13	D22	D15	**EC13**	K30	D15
EC12	D21	D14	**EC12**	K29	D14
EC11	D20	D13	**EC11**	K28	D13
EC1	D19	D12	**EC1**	K27	D12
EC9	D18	D11	**EC9**	K26	D11
EC8	D17	D10	**EC8**	K25	D10
EC7	K24	D9	**EC7**	K24	D9
EC6	K23	D8	**EC6**	K23	D8
EC5	K22	D7	**EC5**	K22	D7
EC4	K21	D6	**EC4**	K21	D6
EC3	K20	D5	**EC3**	K20	D5
EC2	K19	D4	**EC2**	K19	D4
EC1	K18	D3	**EC1**	K18	D3
EC0	K17	D2	**EC0**	K17	D2

3rd Extension Board		
With 3 **extension boards**	Down Collective	Full Collective
EC15	D 32	D22
EC14	D 31	D21
EC13	D 30	D20
EC12	D 29	D19
EC11	D 28	D18
EC1	D 27	U21
EC9	D 26	U20
EC8	D 25	U19
EC7	D 24	U18
EC6	D 23	U17
EC5	D 22	K22
EC4	D 21	K21
EC3	D 20	K20
EC2	D 19	K19
EC1	D 18	K18
EC0	D17	K17

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24 Months
Product Guaranty

Name: _____
Address: _____
Telephone: _____ Fax: _____

ISL Controller Type : _____

Shipping Date :_____
Code :_____
Model :_____

The Product guaranty is valid within 24 months from shipping date and only if:

- The installation was done according our drawings
- No alterations was made in the product without the knowledge of IS technology Production Department
- The product was working under normal conditions (Humidity, Temperature)

This Controller has passed quality control by Lift Auto tester Machine (IS Property) and was produced according the: 95/16/EU, 89/336/EU, 73/23/EU, EN81-1 and EN81-2.

For any injury or damage caused from wrong wiring of the controller, IS technology has no responsibility what so ever.

Thessaloniki, Greece …../…../20...

The Owner of IS technology:

Mr. Thomas Kelantonis

ΕΤΑΙΡΕΙΑ ΒΙΟΜΗΧΑΝΙΚΗΣ ΕΡΕΥΝΑΣ & ΤΕΧΝΟΛΟΓΙΚΗΣ ΑΝΑΠΤΥΞΗΣ ΜΕΤΑΛΛΩΝ Α.Ε. / METALLURGICAL INDUSTRIAL RESEARCH & TECHNOLOGICAL DEVELOPMENT CENTRE S.A.

CERTIFICATE OF COMPLIANCE

Certificate No: LF/A-C-1168/10

Applicant/ Manufacturer / Certificate-holder:	**IS TECHNOLOGY, THOMAS ATH. KELANTONIS, X. Perrevou 37, 54352, Thessaloniki**
Description/Product Type :	**Electrical Control Panel for Lifts ISL–HYD, ISL-TR** With main electronic unit MicroZed and STEM for relevelling
EU Directive/Norms :	95/16/EC, Annex I, 89/336/EC, 2006/95/EC EN81.1, 2, §13 &14, Annex H, EN 12015, EN 12016, EN 55011, EN 61000, EN 60439-1
Control and testing installations :	Laboratory IST, Thessaloniki (95/16/EC, Annex I, EN81.1&2, §13&14) EMC Laboratories, Report No: E10-033 electromagnetic compatibility Emc, Electrical Safety LVD

The lift testing and certification department of MIRTEC SA, certifies hereby that the over mentioned manufacturer has compiled a technical file in accordance with the requirements of Annex V of 95/16/EC which was submitted to us on 10.05.2010 for examination on its completeness and for archiving purposes.

The checks and compliance verification tests on the aforementioned Norms took place at the Laboratories of EMC as regards the electromagnetic compatibility (89/336/ EC), as regards the electromagnetic compatibility (89/336/EC) and electrical safety (Report No: E10-033) .

Control tests were carried out by the MIRTEC S.A. inspector at the IST Laboratory in Thessaloniki, on 10.05.2010 on a prototyp panel, as regards the correct and safe functioning, of the main, auxiliary and safety circuits (95/16/EC,EN 81.2).

Relevant reports: MIRTEC: LF/A-R-1168 /10

The manufacturer has to issue the declaration of conformity and attaches the CE Marking for guideline 89/336/EC and manufacturer's certificate for electrical safety & 95/16/EC.

This certificate is valid until May 2012.
Significant changes to the design and the manufacture of the control panel are to be notified to MIRTEC S.A.

Date of issue: 18.05.2010 MIRTEC's certification department

I. Dimitriadis

LF_A_C_1168_10_ISL_HYD_TR (en).doc AET: 13526 ΚΩΔ. ΕΡΓΟΥ:37452

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Declaration of Conformity CE

EMC Compliance Standards and Directive: 89/336/EU & 95/54/EC

The Company : IS technology
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54 352, THESSALONIKI
GREECE

Declare that the products listed below are following the provisions of the 89/336/EU & 95/54/EC directive. The tests was made by EMC Hellas (Protocol No.: E10/033):

Product:	**Type:**
1. Elevator Controller	ISL_
1.1 For Hydraulic Elevators	HYD_
1.2 For Traction Elevators	TR_

Thessaloniki 26-04-2010
The Company,

"IS TECHNOLOGY"
ΘΩΜΑΣ ΑΘ. ΚΕΛΑΝΤΩΝΗΣ
ΚΑΤΑΣΚΕΥΗ ΗΛΕΚΤΡΟΝΙΚΩΝ ΣΥΣΤΗΜΑΤΩΝ
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